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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

The applicant has cancelled claims 20-30 and claim 40. The applicant failed to supply additional arguments in response to the Final Rejection mailed 3/24/2008 therefore the rejection of claims 1, 4, 6-12, 14-19, 36-39 and 41 are maintained as shown below.

Claim Rejections - 35 USC § 103

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 4, and 6 -10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stonwell et al. (US 5215402) in view of Corbin et al. (US 4854771) Pacey (EP0041335) and Wiley (US 5653552).

Stonwell et al. discloses a process for imprinting a pattern in an asphalt surface where a grid-like template is compressed into an asphalt surface. The template is removed and the asphalt is allowed to harden, then a thin coating of colored concrete can be added to the surface of the patterned asphalt to enhance the brick and mortar effect (abstract).

Stonwell et al. is silent as to providing a pre-formed thermally settable sheet made of thermoplastic material; providing at least one further pre-formed thermally settable sheet; placing the first and at least one further sheet on the asphalt in an aligned configuration then gradually heating in situ to a temperature sufficient to bond the sheets to configure to the first patter as required by **claim 1**.

Corbin Jr. et al. teaches a method of installing a pre-formed pavement marking material on a asphalt surface where the asphalt is softened by means of a portable infrared heater to a temperature sufficient so the pre-formed marking material may be pressed into the asphalt (abstract, col. 2, lines 33-37) and placing the marking material onto the heated pavement (heating in situ), and pressing the marking material using a roller (col. 2, lines 56-66). Corbin Jr. et al. further teaches that the pre-formed thermoplastic marking materials are superior to painted marking material because they have a longer service life (col. 1, lines 47-49).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the process of Stonwell et al. to include the preformed marking material as taught by Corbin, Jr. et al. One would have been motivated to do so because both disclose processes of marking asphalt surfaces and Corbin Jr. et al. teaches the use of preformed marking material over coating because of the longer service life.

Pacey et al. discloses a process for heat bonding thermoplastic road marking material to a road which comprises heating the marking to its melting point to create a bond between the marking and the road surface (page 1, lines 16-page 2, line 3). Pacey discloses the marking may be supplied in two or more sections such as an arrowhead, which would require aligning of the pieces when being applied to the road (page 5, line 36- page 6, line 4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the process of Stonwell et al. to include the heat bonding

of Pacey et al. One would have been motivated to do so because both disclose processes for providing marking materials to roadways and Pacey further teaches that markings can be in more than one section therefore the process is useful in order to assure the sections are aligned properly.

Wiley teaches a process for heating by moving a heater over a surface in a successive forward and backward direction (abstract) which allows for the asphalt to be heated uniformly and efficiently with minimal or no overheating (col. 6, lines 15-33). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the process of Stowell et al. in view of Corbin Jr. et al. to include gradually heating of the substrate. One would have been motivated to do so because both discloses processes for heating pavement in order to apply a marking material and Wiley teaches that heating gradually provides uniform heating in an efficient manner while minimizing or eliminating burning or smoking (Wiley et al. col. 5, lines 40-44).

Corbin Jr. et al. teaches using a marking material having a thickness of about 25-125 mils (col. 1, lines 12-17) as required by **claim 4**.

The sheet is heated to a temperature of 150-300°F as stated by Corbin Jr. et al. (col. 2, lines 56-57) as required by **claim 7**. Wiley et al. teaches gradually heating the sheet to a temperature of 100-190°C (220-374°F) (col. 8, lines 29-34) as required by **claim 8**.

Stonwell et al. teaches that the pattern is formed by forming a hot and pliable asphalt surface; placing a template on the surface and imprinting the template to form a first pattern then the template is removed (abstract, col. 2, lines 60-66) since the asphalt is hot meaning it was heated to form into a pliable surface as required by **claims 9 and 10**.

As stated above Stonwell modified with Corbin Jr. et al. teaches placing a pre-formed thermally settable sheet on a substrate having a first and second surface where the second surface is not in contact with the substrate (Corbin et al. teaches that the marking material is pressed into the asphalt after being applied which means the second surface is not in contact with the substrate prior to pressing); heating the sheet in situ to a temperature for the surface to adhere to the substrate.

4. Claims 11, 12 , 14 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stonwell et al. (US 5215402) in view of Corbin, Jr et al. (US 4854771) and Pacey (EP0041335) as applied to claim 1 above, and further in view of Eigenmann (US 3235436).

The teachings of Stonwell et al. in view of Corbin, Jr. et al. and Pacey as applied to claim 1 are as stated above. However, these references are silent as to using a first sheet that is formed in a second pattern matching the first pattern and is alignable therewith as well as being subdividable into a plurality of discrete sections as required by **claims 11 and 12**.

Eigenmann teaches a process for applying marking strips for crosswalk lines and other traffic aids onto a roadway where the process requires forming a plurality of

patterns by subdividing the marking material into discrete sections (col. 4, lines 45-59) and matching the patters and aligning the patterns (Fig. 4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the process of Stonwell et al., Corbin Jr. et al. and Pacey to form a plurality of discrete sections and aligning and forming a plurality of patterns to form a desired design in a roadway as taught by Eigenmann. One would have been motivated to do so because Eignemann teaches that the process is advantageous over using paint to form designs in pavement and are more durable under severe road conditions (col. 1, lines 14-23).

Eignemann teaches aligning patterns in a non-overlapping relation and where the markings are partially surrounded by another one of the markings (Fig. 4) as required by **claim 14**.

Stonwell et al. teaches patterns that are formed to represent paving stones, cobblestones and bricks (col. 3, lines 1—7 and Fig. 2) which would simulate grout lines and a protective coating is applied and aligned to the edges of the lines as required by **claims 16 and 17**.

5. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stonwell et al. in view of Corbin Jr et al. and Pacey as applied to claim 1 and in further view of 3M Application of Stamark Pre-Cut symbols and legends.

The teachings of Stonwell et al. in view of Corbin Jr et al. and Pacey as applied to claim 1 are as stated above. These references are silent as to applying sheets in an overlapping relation as required by **claim 15**.

3M teaches markings that are applied to roadways such as a railroad crossing (X) symbol which comprises laying out the first diagonal line on the pavement then the overlapping the other diagonal line over the first sheet (Page 6).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the process of Stonwell et al. in view of Corbin Jr et al. and Pacey with the marking of 3M when required to form a certain design which resembles that of a railroad crossing because 3M discloses an optimal way of forming the desired design.

6. Claims 20, 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corbin Jr et al. (US 4854771) and Stonwell et al. (US 5215402).

Corbin Jr. et al. teaches a method of installing a pre-formed pavement marking material on a asphalt surface where the asphalt is softened by means of a portable infrared heater to a temperature sufficient so the pre-formed marking material may be pressed into the asphalt (abstract, col. 2, lines 33-37) and placing the marking material onto the heated pavement (heating in situ), and pressing the marking material using a roller (col. 2, lines 56-66). Corbin Jr. et al teaches that the pre-formed marking material has a first and second surface where the second surface is not in contact with the substrate because it states that the marking material is pressed into the asphalt after being applied which means the second surface is not in contact with the substrate prior to pressing. Corbin Jr. et al. further teaches that the pre-formed thermoplastic marking

materials are superior to painted marking material because they have a longer service life (col. 1, lines 47-49).

Corbin Jr. et al. is silent as to imprinting the sheet by placing a template on the second surface of the sheet; compressing the template to form an impression in the sheet and substrate then removing the template from the second surface as required by **claim 20**.

Stonwell et al. discloses a process for imprinting a pattern in an asphalt surface where a grid-like template is compressed into an asphalt surface. The template is removed and the asphalt is allowed to harden, then a thin coating of colored concrete can be added to the surface of the patterned asphalt to enhance the brick and mortar effect (abstract). Stonwell et al. teaches that the template is compatible with hot asphalt surfaces unlike other conventional tools used to form patterns in hot asphalt.

It would have been obvious to one having ordinary skill in the art to modify the process of Corbin Jr. et al. to include the imprinting process of Stonwell et al. One would have been motivated to do so because both are directed towards processes involving decorating asphalt surfaces and Stonwell et al. further teaches an operable template that can be used with hot asphalt.

Stonwell et al. teaches it is known in the art to apply a release agent to the pattern former in order to prevent it from adhering to the concrete/ asphalt surface (col. 1, lines 50-53) as required by **claim 23**. Corbin Jr. et al. teaches that the sheet is formed from a thermoplastic material and has a thickness of about 25-125 mil (col.1,

lines 7-15) as required by **claims 24 and 26-27**. The substrate is an asphalt surface as required by **claim 25**.

7. Claims 28-30 and 36-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corbin Jr .et al. in view of Stonwell et al. as applied to claim 20 above and further in view of Wiley (5653552).

The teachings of Corbin Jr. et al. and Stonwell as applied to claim 20 are as stated above. However, these references are silent as to using a heating apparatus that is mounted for periodic movement across the sheet to gradually increase the temperature as required by **claim 28.**

Wiley teaches a process for heating by moving a heater over a surface in a successive forward and backward direction (abstract) which allows for the asphalt to be heated uniformly and efficiently with minimal or no overheating (col. 6, lines 15-33).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the process of Stowell et al. in view of Corbin Jr. et al. to include gradually heating of the substrate. One would have been motivated to do so because both discloses processes for heating pavement in order to apply a marking material and Wiley teaches that heating gradually provides uniform heating in an efficient manner while minimizing or eliminating burning or smoking (Wiley et al. col. 5, lines 40-44).

The sheet is heated to a temperature of 150-300°F as stated by Corbin Jr. et al. (col. 2, lines 56-57) as required by **claim 29**. Wiley et al. teaches gradually heating the sheet to a temperature of 100-190°C (220-374°F) (col. 8, lines 29-34) as required by **claim 30**.

Corbin Jr. et al. in combination with Stonwell et al. and Wiley teaches coating a substrate by forming a first pattern in a asphalt substrate; placing a pre-formed thermally settable thermoplastic sheet on the substrate and heating in situ to a temperature to sufficiently adhere the sheet to the substrate in the first pattern where the sheet as a first and second surface (Corbin Jr. et al.) and the heating step is conducted so that there is a gradual increase in temperature. The heating apparatus is mounted on a vehicle, which includes a frame that can periodically pass over the sheet (Wiley col. 7,lines 49-62).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CACHET I. SELLMAN whose telephone number is (571)272-0691. The examiner can normally be reached on Monday through Friday, 7:00 - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Cachet I Sellman

Examiner

Art Unit 1792

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